UNITED
NATIONS

ST

Secretariat

Distr.
GENERAL

ST/SG/AC.10/C.3/1997/37
25 April 1997

Original: ENGLISH

**COMMITTEE OF EXPERTS ON THE
TRANSPORT OF DANGEROUS GOODS**

**Sub-Committee of Experts on the
Transport of Dangerous Goods
(Thirteenth session,
Geneva, 7-17 July 1997,
agenda item (5 (b))**

GLOBAL HARMONIZATION OF SYSTEMS OF CLASSIFICATION AND LABELLING OF CHEMICALS

Physical Hazards

Harmonised definition of aerosols

Transmitted by the Expert of the United Kingdom

Introduction

1. The third meetings of the Flammability and Reactivity Working Groups of the UN Committee of Experts in the Transport of Dangerous Goods were held in Geneva in December 1996. The work of these groups is reported in ST/SG/AC.10/23/Add.4. The two Working Groups have now been combined, and one of the outstanding issues to be discussed by the new combined group is a harmonised definition of aerosols.

Definition of 'aerosol'.

2. It is clear from previous discussions at the Flammability Working Group that there is considerable scope for confusion when the term 'aerosol' is used. For some, 'aerosol' means simply the physical state of a suspension of liquid or solid particles in a gas, and this is the correct scientific use of the term. For others, though, 'aerosols' is used as a shorthand for 'aerosol dispensers', the articles which contain components which, upon release, form true aerosol suspensions of liquid/solid particles in a gas.

3. The various existing definitions are shown in the annex to this proposal: the definitions are all very similar, except for five minor differences:

the UN definition is the only one which recognises the potential for confusion from the world-wide commercial practise of referring to 'aerosol dispensers' as 'aerosols'. It clearly states "Aerosols, this means aerosol dispensers, ..."

the UN specifies within its definition that the aerosol has to have passed a leakproofness test. EC also requires aerosols to be similarly leaktested, but does not include that attribute to be part of the definition

the UN and ICAO definitions specifically include those aerosols which eject their contents "in a gaseous state"

EC uses the term "non-reusable container" whereas UN refers to "non-refillable receptacle"

ICAO further specifies that the release device must be 'self-closing'

Proposal

4. The UN definition is the most general, and also the clearest with respect to the terms 'aerosol' and 'aerosol dispenser'. The phrase "meeting the requirements of 9.8" is not necessary for the definition, and so the following text, based on the UN definition, is proposed as the globally harmonised definition:-

" Aerosols, this means aerosol dispensers, are any non-refillable receptacles made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state or in a gaseous state."

ANNEX

Existing definitions.

Special Provision 190: UN Recommendations

" Aerosols, this means aerosol dispensers, are any non-refillable receptacles meeting the requirements of 9.8, made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state or in a gaseous state."

Article 2: EC Council Directive 75/324/EEC

"The term 'aerosol dispenser' shall mean any non-reusable container made of metal, glass or plastic and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state."

ICAO Technical Instructions (Part 2 : 2.5.1)

" An aerosol means any non-refillable receptacle made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a self-closing release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder, or in a liquid state or gaseous state."